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IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF ALASKA

In re Crash of Aircraft N93PC	)	No. 3:15-cv-0112-HRH
	)	[Consolidated with
on July 7, 2013, at Soldotna, Alaska	)	No. 3:15-cv-0113-HRH and
	)	No. 3:15-cv-0115-HRH]

O R D E R

Recon Air Corporation's Motion for Summary Judgment

Recon Air Corporation moves for summary judgment on plaintiffs' claims.[1] This motion is opposed.[2] Oral argument was requested and has been heard.

Facts

On July 7, 2013, a deHavilland DHC-3 "Otter" airplane operated by Rediske Air, Inc. and piloted by Walter Rediske crashed shortly after take-off from the Soldotna Airport. Rediske and all of the passengers on board were killed in the crash. Plaintiffs, which for purposes of the instant motion are the estates of the passengers, assert wrongful death, negligence, strict product liability, and breach of warranty claims against Recon Air.

[1]Docket No. 216.

[2]Docket No. 270.

The accident aircraft was modified in 2010. The modifications were approved under Supplemental Type Certificates (STCs) and included a Texas Turbine Engine Conversion and a Baron Short Takeoff & Landing (STOL) kit.[3] The engine conversion included the installation of a Honeywell TPE331 turbine engine. Recon Air installed both the engine and the Baron STOL Kit. Recon Air is a Transport Canada certified installation facility. Recon Air contends that upon the completion of the work in 2010,

> the aircraft was exported from Canada and imported to the United States. During this time, [Transport Canada] inspected the aircraft and RAC's records in order to independently determine that RAC performed all of the required inspections and complied with all of the airworthiness directives before issuing the Certificate of Airworthiness ("CoA") for export to the United States.[4]

Recon Air also contends that "an FAA representative independently determined that RAC performed all the requested inspections and complied with all of the airworthiness directives and issued the FAA Import Certificate of Airworthiness."[5]

STC #SA94-114, which is for the Baron STOL kit, was approved on August 23, 1994 and provides that "[p]rior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not

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[3]The 2010 modification also included the installation of an extended fuel range system, a cargo net, ELT and a Pulselite system.

[4]Memorandum in Support of RAC's Motion for Summary Judgment at 4, Docket No. 217.

[5]Id.

adversely affect the airworthiness of the modified product."[6] The Flight Manual Supplement (FMS) #4, Revision #2, which was effective in 2010, provided that installation of a Baron STOL kit was "compatible with any approved engine installation (piston or turbine)."[7] FMS #4, Revision #2, also provided that the installation of the STOL kit did not change the weight and balance of the aircraft.[8]

STC #SA09866SC, which is for the Texas Turbine conversion kit, was issued by the FAA on May 5, 2001 and provides that "[t]his alteration is compatible with approved Landplane and Seaplane configurations of the DHC-3 aircraft. Compatibility of this design change with previously approved modifications must be determined by the installer."[9] The STC for the Texas Turbine conversion kit which was issued by Transport Canada provides that

> [t]his approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the modified product.[[10]]

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[6]Exhibit 1 at 1, Memorandum in Support of RAC's Motion for Summary Judgment, Docket No. 217.

[7]Id. at 4.

[8]Id.

[9]Exhibit 2 at 1, Memorandum in Support of RAC's Motion for Summary Judgment, Docket No. 217.

[10]Id. at 2.

Recon Air relied on the information provided in the STCs to determine compatibility when doing the 2010 modification.[11] Recon Air also relied on "the installation instructions or the supplements which would go in the maintenance manual and the flight manual."[12]

Recon Air contends that plaintiffs' only "articulated theory of liability against RAC . . . is that RAC should have conducted flight testing before releasing the aircraft to transport to the United States in order to determine the supposed change in the center of gravity envelope for the aircraft allegedly caused by the installation of the STOL kit."[13] This theory, according to Recon Air, is primarily based on the opinion of Colin Sommer, one of plaintiffs' experts. In his initial expert report, Sommer opined that

> [i]nstallation of the STOL kit by Recon changed the center of gravity envelope for the aircraft. The aft . . . limit[] center of gravity during the subject flight was exacerbated by the STOL kit installation.[[14]]

At his deposition, Sommer testified that Recon Air "should have done flight testing to establish what the new flight envelope was, given the fact that they implemented multiple STCs and didn't have any way to correlate between the different STC holders as to what the

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[11]Deposition of Robert Mercer at 39:14-19, Exhibit C, Plaintiffs' Opposition to Recon Air Corporation's Motion for Summary Judgment, Docket No. 270.

[12]Mercer Deposition at 41:18-20, Exhibit A, Reply to Plaintiffs' Opposition to RAC's Motion for Summary Judgment, Docket No. 289.

[13]Memorandum in Support of RAC's Motion for Summary Judgment at 5, Docket No. 217.

[14]Report of Findings, Exhibit A at 21, Memorandum in Support of RAC's Motion to Strike Colin Sommer's August 2, 2019 Affidavit, Docket No. 292.

effect on additional STCs would be."[15] Sommer also testified that although Recon Air did a weight and balance on the accident aircraft after both the STOL kit and the Texas Turbine conversion kit were installed, Recon Air did not do it properly.[16] And, Sommer testified that "the aircraft crash was a combination of the loss of engine power in combination with the center of gravity limits being inappropriately determined."[17]

Dr. Cochran, another of plaintiffs' experts, also testified that there should have been flight testing done on an aircraft "which had both the Texas Turbine conversion and the STOL kit" and that "a lot of my opinion, total opinion, is based on the fact that in combination, the addition of the STOL kit plus the change to the turbine engine together caused changes in the stability of the aircraft."[18] Dr. Cochran testified that "the movement of the neutral point is . . . in my opinion . . . the most probable explanation of what caused the aircraft to pitch up."[19]

Recon Air now moves for summary judgment on all of plaintiffs' claims against it.

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[15]Video Deposition of Colin Sommer at 144:12-17, Exhibit 10, Memorandum in Support of RAC's Motion for Summary Judgment, Docket No. 217.

[16]Sommer Deposition at 157:13-17, Exhibit G, Plaintiffs' Opposition to Recon Air Corporation's Motion for Summary Judgment, Docket No. 270.

[17]Id. at 25:8-11.

[18]Deposition of John E. Cochran at 28:22-29:3, Exhibit B, Plaintiffs' Opposition to Recon Air Corporation's Motion for Summary Judgment, Docket No. 270.

[19]Id. at 80:7-10.

Discussion

Summary judgment is appropriate when there are no genuine issues of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a). The initial burden is on the moving party to show that there is an absence of genuine issues of material fact. Celotex Corp. v. Catrett, 477 U.S. 317, 325 (1986). If the moving party meets its initial burden, then the non-moving party must set forth specific facts showing that there is a genuine issue for trial. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 247-48 (1986). In deciding a motion for summary judgment, the court views the evidence of the non-movant in the light most favorable to that party, and all justifiable inferences are also to be drawn in its favor. Id. at 255. "'[T]he court's ultimate inquiry is to determine whether the 'specific facts' set forth by the nonmoving party, coupled with undisputed background or contextual facts, are such that a rational or reasonable jury might return a verdict in its favor based on that evidence.'" Arandell Corp. v. Centerpoint Energy Services, Inc., 900 F.3d 623, 628–29 (9th Cir. 2018) (quoting T.W. Elec. Service, Inc. v. Pacific Elec. Contractors Ass'n, 809 F.2d 626, 631 (9th Cir. 1987)).

Recon Air begins by arguing that plaintiffs cannot establish causation. In other words, Recon Air argues that plaintiffs cannot establish that "RAC's alleged failure to determine compatibility of the installed Supplemental Type Certificates . . . on the subject aircraft is the

proximate cause of this crash."[20] Recon Air contends that causation is an essential element of all of plaintiffs' claims, but only cites to the law that applies to negligent conduct. Under Alaska law, "[n]egligent conduct may be found to be the legal cause of harm if the negligent act was more likely than not a substantial factor in bringing about [the] injury[.]" Gonzales v. Krueger, 799 P.2d 1318, 1320 (Alaska 1990) (citation omitted). "Normally, in order to satisfy the substantial factor test it must be shown both that the accident would not have happened 'but for' the defendant's negligence and that the negligent act was so important in bringing about the injury that reasonable men would regard it as a cause and attach responsibility to it." Id. (citation omitted). But, Alaska negligence law does recognize that there can be multiple causes of injury. Shea v. State, Dep't of Admin., Div. of Retirement and Benefits, 267 P.3d 624, 633 (Alaska 2011).

Recon Air contends that plaintiffs have presented two independent causes of the accident, Recon Air's failure to conduct flight testing to ensure compatibility of the STCS and the alleged defective torsion shaft. But, Recon Air argues that in order to establish liability as to it, plaintiffs must prove that the alleged failure to conduct flight testing, operating alone, "play[ed] so important a part in producing the result that responsibility should be imposed upon it. . . ."[21] Recon Air argues that plaintiffs have no evidence that but for its failure to conduct its own flight testing, the accident would not have occurred. Recon

[20]Memorandum in Support of RAC's Motion for Summary Judgment at 8, Docket No. 217.

[21]Prosser & Keeton, Law of Torts § 41.

Air cites to the testimony of Sommer in support of this argument. Sommer testified that absent the engine failure, the accident flight would have been a successful flight.[22] Recon Air argues that Sommer's testimony thus establishes that any alleged failure by Recon Air to conduct flight testing was not a proximate cause of the accident.

The above-quoted testimony by Sommer about the accident flight being successful absent the engine failure does not conclusively establish that Recon Air's alleged failure to do flight testing was not a cause of the accident. While it does create some doubt as to whether plaintiffs will be able to prove causation as to Recon Air, it does not establish, as a matter of law, that plaintiffs cannot prove causation as to any of their claims.

Recon Air next argues that plaintiffs cannot prove causation because 2018 flight testing establishes that the accident was not caused by the installation of the STOL kit and the Texas Turbine conversion kit. Dr. Cochran testified that flight testing should have been done to ensure the compatibility of the STOL kit and the Texas Turbine conversion kit, explaining that

> a test to determine the neutral point location, neutral point movement, and so forth would be the kind of test that you would do. And it would require you to fly the aircraft at different flight conditions and measure the change . . . in the elevator deflection, the function of the lift coefficient and some things like that,

[22]Sommer Deposition at 180:6-15, Exhibit 10, Memorandum in Support of RAC's Motion for Summary Judgment, Docket No. 217.

> change the CG and make . . . a plot to determine by extrapolation the neutral point.[23]

And this is exactly the type of flight testing that was done in 2018, according to Recon Air. Robert Carducci, one of defendants' experts, participated in the 2018 flight testing, and in his rebuttal report, stated the following:

> 2.30.16. The results of [this] flight testing revealed none of the negative flight characteristics opined by either Dr. Cochran or Mr. Sommer. In fact, the aircraft was easy to fly throughout the speed range including takeoff with full landing-flaps, even at the over-weight conditions.
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> 2.30.17 All maneuvers resulted in stable, controllable, and benign responses of the aircraft. General handling of the aircraft was easy and intuitive with no abrupt or uncontrollable tendencies. In short, the aircraft had none of the uncontrollable tendencies opined by the plaintiff's [sic] experts.[24]

Recon Air insists that the 2018 flight testing conclusively establishes that a "DHC-3 aircraft, with full flap setting, and as modified with the Texas Turbine engine conversion and the STOL kit, was completely controllable with an aft center of gravity of 152.2[.]"[25] And, if this is what the 2018 flight testing establishes, then Recon Air argues that plaintiffs cannot prove that Recon Air's alleged failure to conduct flight testing was a cause of the accident.

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[23]Cochran Deposition at 174:23-175:6, Exhibit 11, Memorandum in Support of RAC's Motion for Summary Judgment, Docket No. 217.

[24]Carducci Rebuttal Report, Exhibit 12 at 34, Memorandum in Support of RAC's Motion for Summary Judgment, Docket No. 217.

[25]Memorandum in Support of RAC's Motion for Summary Judgment at 2, Docket No. 217.

The 2018 flight testing did not replicate the accident flight in that the test flight was not loaded to the same CG as the accident flight, the same airspeeds were not used, and the same number of people were not on board. While the 2018 flight testing may substantially undermine plaintiffs' liability theory as to Recon Air, this testing does not conclusively establish that a DHC-3 aircraft with a STOL kit and a Texas Turbine conversion kit was completely controllable with an aft center of gravity of 152.2 inches, as Recon Air contends.

Moreover, plaintiffs contend that their theory of liability as to Recon Air is not just based on its failure to do flight testing but also on its duties as an installer to assess and ensure compatibility of STCs. This duty, according to plaintiffs, may be met by flight testing but plaintiffs argue that this is not the only way an installer might fulfill this duty. And if Recon Air did not meet its duty as an installer, plaintiffs argue that this failure was a substantial factor in causing the accident. In support of this argument, plaintiffs cite to the testimony of Dr. Cochran and the opinion of Sommer. Dr. Cochran has testified that the installation of the STOL kit and the Texas Turbine conversion kit changed the aircraft's neutral point.[26] And Sommer has opined that the installation of the STOL kit changed the center of gravity envelope for the accident aircraft.[27] Plaintiffs seem to be arguing that this evidence suggests that Recon Air did not meet its duties as an installer.

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[26]Cochran Deposition at 28:22-29:3, Exhibit B, Plaintiffs' Opposition to Recon Air Corporation's Motion for Summary Judgment, Docket No. 270.

[27]Report of Findings, Exhibit A at 21, Memorandum in Support of RAC's Motion to Strike Colin Sommer's August 2, 2019 Affidavit, Docket No. 292.

Recon Air does not dispute that as a certified installation facility, it has a duty to determine the compatibility of the installed STCs. But, Recon Air argues that it is undisputed that it fulfilled its duty to ensure the compatibility of the installed STOL kit with the turbine engine.[28] Recon Air contends that it fulfilled its duty as an installer because it was entitled to rely on the STCs and the Flight Manual Supplement which were in effect at the time of the 2010 modification. At that time, FMS #4, Revision 2, provided that "[t]his installation is compatible with any approved engine installation (piston or turbine)."[29] It also provided that there was no change in the weight and balance due to the installation of a STOL kit.[30] And, the Texas Turbine conversion engine was approved for installation on a DHC-3 aircraft.[31] Recon Air contends that prior to issuing the STC for the Texas Turbine conversion kit, the FAA reviewed the 2000 flight test results and other supporting technical documentation and that in turn, Transport Canada reviewed and endorsed the FAA's issuance of the STC prior to issuing the Canadian STC. And, Recon Air contends that the STC for the STOL kit underwent a similar approval process when it was issued in 1994 by Transport

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[28]The parties have not indicated which of plaintiffs' claims require plaintiffs to prove a duty and a breach of duty, but these are elements of a negligence claim under Alaska law, Lyons v. Midnight Sun Transp. Services, Inc., 928 P.2d 1202, 1204 (Alaska 1996).

[29]Exhibit 1 at 4, Memorandum in Support of RAC's Motion for Summary Judgment, Docket No. 217.

[30]Id.

[31]Exhibit 2 at 1, Memorandum in Support of RAC's Motion for Summary Judgment, Docket No. 217.

Canada. Recon Air argues, that as an installer, "it would refer to any and all approved data, including installation instructions, drawings, and the STC itself, to determine whether the question of compatibility had been predetermined."[32] And, Recon Air argues that in this case, the determination of compatibility was made by Transport Canada and the FAA during the certification process for the STOL kit. As a result, Recon Air argues that in 2010, when it modified the accident aircraft, there was FAA-approved technical data that indicated that the STOL kit was compatible with any turbine engine conversion. And, Recon Air argues that plaintiffs have no evidence that anything more is required of an installer. As Dr. Orloff, one of defendants' experts, explained,

> [t]he explicit approval of the Flight Manual Supplement by both the United States FAA and the Canadian DOT is of paramount importance. A review of the FAA process for issuance of an STC and the associated approval of the Flight Manual Supplement reveals that Recon Air could, in my opinion, justifiably rely on the Flight Manual Supplement as APPROVED DATA in its assessment that the Baron STOL kit and the Texas Turbine Conversion STC were compatible. In my opinion, Recon Air needed nothing more than the APPROVED statement of compatibility in the AFMS to conclude that the requisite testing to ensure compatibility had already been conducted, evaluated, and approved. Such testing is arguably comparable to the unnecessary testing that experts Sommer and Coffman opine should have been conducted by Recon Air. Indeed, based on the statement of compatibility in the AFMS . . . , the requisite testing for compatibility had already been done.[33]

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[32]Memorandum in Support of RAC's Motion for Summary Judgment at 19, Docket No. 217.

[33]Orloff Expert Rebuttal Report Concerning Crash of DHC-3 Otter N93PC, Exhibit 13 at 3, Memorandum in Support of RAC's Motion for Summary Judgment, Docket No. 217.

And at his deposition, Dr. Orloff testified that an installer determines compatibility by

> confirm[ing] that there is approved data that authorizes the aircraft and assures the compatibility. If that doesn't exist, then I'll have to go further and call the FAA and ask them about the issue, . . . but . . . if I have approved data that says it's compatible, then I'm fine.[34]

Dr. Orloff testified that an installer can rely on approved data "completely" and that "[t]he approved data in this case is the STC and approval of the STC itself."[35] Thus, Recon Air argues that the evidence clearly establishes that it did all that it was required to do in order to ensure the compatibility of the STOL kit and the Texas Turbine conversion kit.

Plaintiffs have come forward, however, with evidence that creates questions of fact as to whether Recon Air fulfilled its duty as an installer. Plaintiffs offer the testimony of Paul Roderick, the pilot in charge of the 2018 flight testing. Roderick was asked whether he believed "that as an installer there's an obligation to perform flight testing to confirm the compatibility of the Baron STOL kit and the turbine[?]"[36] Roderick answered:

> Well, since we have had them in the past, I mean, we didn't feel it was necessary to perform a compatibility test, but we did do flight testing on it.
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[34]Deposition of Kenneth L. Orloff Ph.D. at 26:16-27:1, Exhibit 16, Memorandum in Support of RAC's Motion for Summary Judgment, Docket No. 217.

[35]Id. at 27:6-23.

[36]Deposition of Paul Roderick at 59:11-14, Exhibit J, Plaintiffs' Opposition to Recon Air Corporation's Motion for Summary Judgment, Docket No. 270.

> So any time . . . that you do one of these conversions, it's pretty major surgery. You're reskinning parts of the airplane. You may be rebuilding control surfaces. And certainly you have -- the whole front end is completely rebuilt. Sometimes the fire wall is completely rebuilt. It's a new engine mount. . . . [Y]ou do another weight and balance, a modern one, and then you change the avionics typically. So it's a whole new panel. So it just behooves you to go fly it around and put it through the paces.
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> [B]efore you put passengers in it, you want to be sure that this plane is going to basically perform within its normal parameters. . . . [Y]ou want to make sure everything's adjusted, that the trim is right, that . . . the control pressures are normal, and . . . I don't know anybody who would get into a plane after a major alteration who wouldn't flight test it before[.[37]]

Plaintiffs also cite to the testimony of Arthur Coffman, one of their experts, who opined that

> the installer is always responsible for the compatibility of new STC's with previously installed equipment on specific aircraft due to the fact that every aircraft is equipped differently and has to be addressed individually, case by case. Compatibility of every possible combination of STC's on an individual aircraft has to be the responsibility of the installer. Every aircraft has its own flight characteristics and must be tested individually for equipment and component compatibility before the aircraft can be determined to be airworthy and returned to service.[[38]]

The testimony of Roderick and Coffman is sufficient to create genuine issues of material fact as to whether Recon Air fulfilled its duty as an installer.

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[37]Id. at 59:15-61:25.

[38]Rebuttal Report of Arthur Lee Coffman at 2, Exhibit R, Plaintiffs' Opposition to Recon Air Corporation's Motion for Summary Judgment, Docket No. 270.

Conclusion

Recon Air's motion[39] for summary judgment on the passenger plaintiffs' claims is denied. Viewing the evidence in the light most favorable to the passenger plaintiffs, a reasonable fact finder could determine that Recon Air failed to fulfill its duties as an installer, in part because Recon Air should have conducted flight testing after the 2010 modification, and that this failure was a substantial factor in causing the accident.

DATED at Anchorage, Alaska, this 19th day of June 2020.

/s/ H. Russel Holland
United States District Judge

[39]Docket No. 216.